

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PCT0268	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/NL93/00093	International filing date (day/month/year) 04/05/93	(Earliest) Priority Date (day/month/year) 05/05/92
Applicant RIJKSUNIVERSITEIT LEIDEN et al.		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. ☒ Certain claims were found unsearchable (see Box I).

2. ☐ Unity of invention is lacking (see Box II).

3. ☒ The international application contains disclosure of a **nucleotide and/or amino acid sequence listing** and the international search was carried out on the basis of the sequence listing

☐ filed with the international application.

☒ furnished by the applicant separately from the international application,

☐ but not accompanied by a statement to the effect that it did not include matter going beyond the disclosure in the international application as filed.

☐ Transcribed by this Authority

4. With regard to the title, ☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is:

Figure No. _____ ☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☒ None of the figures.

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark : Although claims 20-21 are directed to a method of treatment of (diagnostic method practised on) the human body the search has been carried out and based on the alleged effects of the compound.
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/NL 93/00093

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all)⁶

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl. 5 C07K7/06; A61K37/02

II. FIELDS SEARCHEDMinimum Documentation Searched⁷

Classification System	Classification Symbols
Int.Cl. 5	C07K ; A61K

Documentation Searched other than Minimum Documentation
to the Extent that such Documents are Included in the Fields Searched⁸**III. DOCUMENTS CONSIDERED TO BE RELEVANT⁹**

Category ^o	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
X	<p>EUROPEAN JOURNAL OF CANCER vol. 28, no. 2/3, February 1992, pages 326 - 333 ANNETTE ALTMANN ET AL. 'Definition of immunogenic determinants of the human papillomavirus type 16 nucleoprotein E7' * Abstract *</p> <p>see page 327, left column, paragraph 1 - paragraph 2; table 1 see page 329, right column, paragraph 2 - page 330, right column, paragraph 1 see page 331, left column, last paragraph - right column, paragraph 2 see page 331, right column, paragraph 7 - page 332, left column, paragraph 1</p> <p style="text-align: center;">---</p> <p style="text-align: right;">-/--</p>	1,2

^o Special categories of cited documents :¹⁰

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

IV. CERTIFICATION

Date of the Actual Completion of the International Search 20 SEPTEMBER 1993	Date of Mailing of this International Search Report 29 -09- 1993
International Searching Authority EUROPEAN PATENT OFFICE	Signature of Authorized Officer MONTERO LOPEZ B.

III. DOCUMENTS CONSIDERED TO BE RELEVANT (CONTINUED FROM THE SECOND SHEET)

Category °	Citation of Document, with indication, where appropriate, of the relevant passages	Relevant to Claim No.
A	<p>PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA. vol. 88, no. 13, 1 July 1991, WASHINGTON US pages 5887 - 5891 ROBERT W. TINDLE ET AL. 'A ' see page 5887, left column, paragraph 1 - last paragraph; figure 1A see page 5888, left column, paragraph 5 - page 5889, left column, paragraph 1 see page 5890, right column, last paragraph - page 5891, left column, last paragraph</p> <p>---</p>	1,2,4,5, 15,16,17
A	<p>JOURNAL OF VIROLOGY vol. 65, no. 9, September 1991, pages 4681 - 4690 SARAH A. COMERFORD ET AL. 'Identification of T- and B-cell epitopes of the E-7 protein of human papillomavirus type 16' * abstract * see page 4685, left column, paragraph 2 - right column, paragraph 1; figure 1</p> <p>---</p>	1,2,5,8, 10,12, 14,15
A	<p>WO,A,9 205 248 (BRISTOL-MYERS SQUIBB COMPANY) 2 April 1992 see page 7, line 9 - page 9, line 18 see page 26, line 22 - page 27, line 15; claims 1,7-10,18,24,38-48</p> <p>---</p>	1,16,17, 19,20
A	<p>EP,A,0 375 555 (MEDGENIX GROUP, S.A.) 27 June 1990 see page 4, line 4 - line 19</p> <p>---</p>	1,2,4,5, 6,10,12, 14
A	<p>EP,A,0 456 197 (BEHRINGWERKE) 13 November 1991 see page 2, line 29 - line 54</p> <p>---</p>	1,3,6,16
P,X	<p>PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA. vol. 89, no. 17, 1 September 1992, WASHINGTON US pages 7871 - 7875 HANS J. STAUSS ET AL. 'Induction of cytotoxic T lymphocytes with peptides in vitro: Identification of candidate T-cell epitopes in human papilloma virus'</p> <p>-----</p>	1,2

**ANNEX TO THE INTERNATIONAL SEARCH REPORT
ON INTERNATIONAL PATENT APPLICATION NO.**

NL 9300093
SA 74419

This annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20/09/93

Patent document cited in search report	Publication date	Patent family member(s)		Publication date
WO-A-9205248	02-04-92	AU-A-	8762991	15-04-92
		CN-A-	1067382	30-12-92
EP-A-0375555	27-06-90	FR-A-	2641081	29-06-90
		CA-A-	2006118	23-06-90
		JP-A-	2291297	03-12-90
EP-A-0456197	13-11-91	DE-A-	4015044	14-11-91
		AU-A-	7621291	14-11-91
		JP-A-	4227000	17-08-92